



SURFACE MOUNT ZENER DIODE

ZM4728A THRU ZM4764A

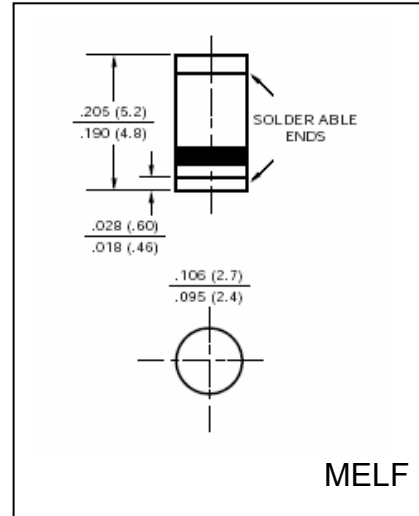
VOLTAGE RANGE 3.3 to 100 Volts
POWER DISSIPATION 1.0 Watt

FEATURES

- Planer die construction
- General Purpose, high power device
- 1W power dissipation
- Well suited for auto insertion equipment
- High Temperature Soldering:
260 °C / 10 seconds, 265 °C / 5 seconds at terminals
- Also available in the DO-41 package as the 1N4728A series

MECHANICAL DATA

- Case: MELF package
- Terminals: Solderable per MIL-STD 750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounce, 0.116 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	VALUE	UNIT
Device Characteristics – See table			
Forward Voltage @I _F = 200mA	V _F	1.2	Volts
Power dissipation (Note 1)	P _D	500	mW
Typical Thermal Resistance (Note 1)	R _{θJA}	170	°C/W
Operating Junction Temperature Range	T _J	(-65 to +200)	°C
Storage Temperature Range	T _{STG}	(-65 to +200)	°C

Notes:

1. Provided terminals are kept at ambient temperature



RATINGS FOR ZM4728A THRU ZM2764A

Electrical Characteristics - All values at $T_A = 25^{\circ}\text{C}$ unless otherwise specified

Type Number	Nominal Zener Voltage at I_{ZT} (Note 2)		Maximum Zener Impedance (Note 1)			Maximum Reverse Current		Maximum Surge Current 8.3mS	Maximum Regulator Current, (Note 3)
	V_Z	I_{ZT}	$Z_{ZT}@ I_{ZT}$	$Z_{ZK}@ I_{ZK}$	I_{ZK}	I_R	V_R	I_{ZS}	I_{ZM}
	(V)	mA	Ohms		mA	μA	V	mA	mA
ZM4728A	3.3	76	10	400	1.0	100	1	1380	276
ZM4729A	3.6	69	10	400	1.0	100	1	1260	252
ZM4730A	3.9	64	9.0	400	1.0	50	1	1190	234
ZM4731A	4.3	58	9.0	400	1.0	10	1	1070	217
ZM4732A	4.7	53	8.0	500	1.0	10	1	970	193
ZM4733A	5.1	49	7.0	500	1.0	10	1	890	178
ZM4734A	5.6	45	5.0	550	1.0	10	2	810	162
ZM4735A	6.2	41	2.0	600	1.0	10	3	730	146
ZM4736A	6.8	37	3.5	700	1.0	10	4	660	133
ZM4737A	7.5	34	4.0	700	0.5	10	5	605	121
ZM4738A	8.2	31	4.5	700	0.5	10	6	550	110
ZM4739A	9.1	28	5.0	700	0.5	10	7	500	100
ZM4740A	10	25	7.0	700	0.25	10	7.6	454	91
ZM4741A	11	23	8.0	700	0.25	5	8.4	414	83
ZM4742A	12	21	9.0	700	0.25	5	9.1	380	76
ZM4743A	13	19	10	700	0.25	5	9.9	344	69
ZM4744A	15	17	14	700	0.25	5	11.4	304	61
ZM4745A	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746A	18	14	20	750	0.25	5	13.7	250	50
ZM4747A	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748A	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749A	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750A	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751A	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752A	33	7.5	45	1000	0.25	5	25.1	135	27
ZM4753A	36	7	50	1000	0.25	5	27.4	125	25
ZM4754A	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755A	43	6	70	1500	0.25	5	32.7	110	22
ZM4756A	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757A	51	5	95	1500	0.25	5	38.8	90	18
ZM4758A	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759A	62	4.0	125	2000	0.25	5	47.1	70	14
ZM4760A	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761A	75	3.3	175	2000	0.25	5	56.0	60	12
ZM4762A	82	3.0	200	3000	0.25	5	62.2	55	11
ZM4763A	91	2.8	250	3000	0.25	5	69.2	50	10
ZM4764A	100	2.5	350	3000	0.25	5	76.0	45	9

Notes:

1. Measured under thermal equilibrium and DC test conditions
2. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .



CHARACTERISTIC CURVES ZM4728A THRU ZM4764A

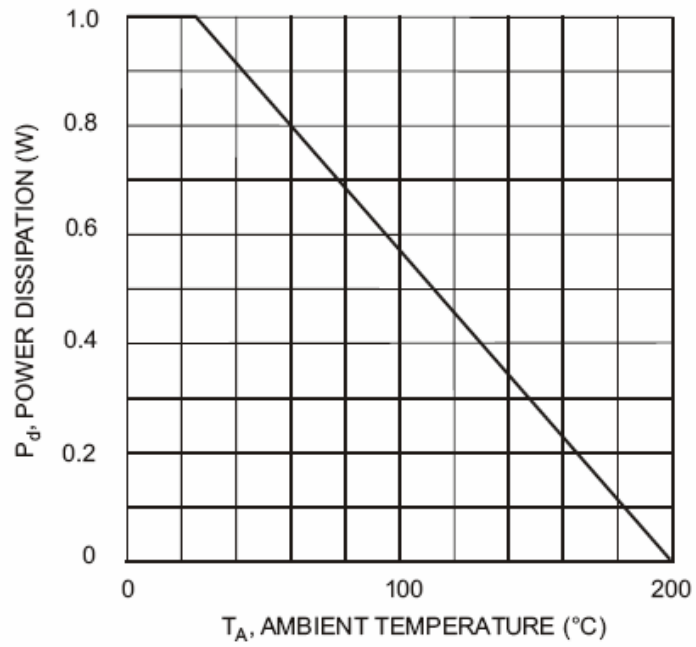


Fig. 1, Power Derating Curve